

## BIBLIOGRAPHY

C. FITZHUGH TALMAN, Meteorologist in Charge of Library

## RECENT ADDITIONS

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

**Blosset,** ——.

Météorologie côtière de Madagascar, et essai climatologique. [Tanaarive, 1924.] 16 p. plates. 27½ cm..

**Bonchowsky, W. F.**

Meteli i pozemki. [Snowstorms and lower snowstorms.] Moskva. 1925. 79 p. illus. 26½ cm. [Trans. Cent. aero-hydrodynamical institute. no. 11.]

**Diaz, Severo.**

Estudios y notas del Observatorio particular D. C. B. Guadalajara. 1925. 4 p. 22 cm.

**Eredia, F.**

Per l'intensificazione delle osservazioni meteorologiche nell'alta atmosfera. Pisa. 1924. 7 p. 25 cm. (Est.: Atti assoc. ital. di aerotecnica. Anno 4, n. 4, 1924.)

Le precipitazioni aeree nelle regioni più piovose dell'Italia. Firenze. 1925. 12 p. 24 cm. (Est.: Rivista geogr. ital. Anno 31, 1924.)

Sulle prime osservazioni meteorologiche e le nuove normali climatiche a Bengasi. Roma. 1924. 10 p. 24 cm. (Est.: Boll. di inform. econ., 1924, n. 5.)

**Fantoli, Amilcare.**

Relazione generale sull'impianto e funzionamento della rete meteorologica della Libia nel quinquennio 1919-1923. p. 564-592. charts. 24 cm. (Min. delle colonie. Boll. di inform. econ. Lug.-Ago., 1924. Roma. Anno 12, N. 4.)

**Finley, John P.**

Tornadoes in the United States in 1924, where they happened, lives and property lost. p. 3-13. illus. 33 cm. (Insurance press. v. 60, Jan. 28, 1925.)

Underwriting tornado and weather hazards. p. 43-44. 33 cm. (Insurance press. v. 60, Jan. 28, 1925.)

**Frenzel, Walter.**

Klima und Landschaftsbild der Oberlausitz in vorgeschichtlicher Zeit. Reichenau i. Sachsen. 1923. 79 p. plates. 21 cm. (Oberlausitzer Heimatstudien. 2 Heft.)

**Greeley, S. A.**

Notes on the relation between the capacity of combined and storm sewers, their cost, and the frontage assessment. p. 13-21. figs. 23 cm. [Journ. West. soc. eng., v. 30, Jan., 1925.]

**Hoffman, Frederick L.**

Papers on tornado and windstorm insurance. v. p. 32½ cm. [The Spectator, 1896-1925.]

Windstorm and tornado insurance. pt. 1-7. v. p. 31½ cm. [The Spectator. Oct. 9, 1924-Feb. 12, 1925.]

**Kassner, C.**

Rauhreib und Glatteis. 11 p. figs. 29½ cm. (Mitteil. der Vereinigung der Elektrizitätswerke. Jahrg. 24, Jan., 1925.)

**Larsen, J. A.**

Forest fire season at different elevations in Idaho. p. 19-23 fig. 26 cm. [Idaho forester, v. 6, 1924.]

**Marczell, György.**

Erdős területek szélviszonyairól. [Wind conditions in the vicinity of forests.] p. 97-109. 23 cm. (Bull. Soc. hon- groise de géog., T. 52, Fase. 7-10, 1924.)

**Ogura, Sinkiti.**

Effect of atmospheric pressure on sea-level in the western part of the North Pacific ocean. 23 p. figs. 26 cm. (Japanese journ. astron. & geophys., v. 2, no. 4, 1925.)

**Pitman, George W.**

Precipitation and temperature conditions for Wyoming. p. 10, 14. illus. 30 cm. (Wyoming roads, Cheyenne. v. 1, no. 7, March, 1925.)

**R. J.**

Sécheresse des années 1920-1921 dans la région des Alpes et le sud-ouest de la France. p. 341-348. figs. 27½ cm. (Min. de l'agric. Dir. gén. des eaux et forêts. Annales hydraul., génie rural . . . Fase. 52. Paris, 1921-1922.)

**Robitzsch, M.**

Die Beobachtungsmethoden des modernen Meteorologen. Berlin. 1925. 125 p. figs. 25½ cm. (Sammlung geo- physikalischer Schriften. Nr. 4.)

**Rouch, J.**

Les méthodes de prévision du temps. Paris. 1924. 280 p. illus. 19 cm.

**Sanford, Fernando.**

Summary of observations on earth potential, air potential gradients, and earth-currents, September, 1923-December, 1924. Palo Alto. 1925. 35 p. figs. 25½ cm. (Bull. Terr. elec. observ. of Fernando Sanford, Palo Alto, Calif., v. 2.)

**Schonken, J. D.**

Desiccation and how to measure it. p. 131-148. 24 cm. [South African journ. sci., v. 21, Nov., 1924.]

**Spitaler, Rudolf.**

Die Ergebnisse der Terminbeobachtungen im Jahrfünft 1915-1919. Prag. 1924. 24 p. 31½ cm. (Veröffentl. des met. Observ. Donnersberge (Böhmen). Nr. 10.)

**Tallqvist, Hj.**

Viktor Theodor Homén. Minnestal vid Finska vetenskaps-societeten sammanträde den 17 December 1923. Helsingfors. 1924. 40 p. port. 24 cm. (Finska vetenskaps-societeten minnesteckningar och föredrag. II: 5.)

**Tsingtao. Observatory.**

Code for meteorological wireless messages, issued by the Tsingtao observatory, Tsingtao, Republic of China. 1924. 11 p. 21 cm.

**Walker, Gilbert.**

Weather and long-range forecasting. p. 99-104. figs. 28 cm. [Discovery. London. v. 6, Mar., 1925.]

**Williams, C. B.**

Cotton growing in relation to climate in Egypt and the Sudan. Cairo. 1924. 31, 6 p. plates (part fold.). 27 cm. (Min. of agric., Egypt. Tech. & sci. serv. Bull. no. 47.)

**Wintermyer, A. M.**

Percentage of water freezable in soils. p. 5-8. illus. 29 cm. (Public roads, Wash., v. 5, Feb., 1925.)

## RECENT PAPERS BEARING ON METEOROLOGY

The following titles have been selected from the contents of the periodicals and serials recently received in the library of the Weather Bureau. The titles selected are of papers and other communications bearing on meteorology and cognate branches of science. This is not a complete index of all the journals from which it has been compiled. It shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau.

**France. Académie des sciences. Comptes rendus. t. 179. 6 avril, 1925.**

**Bureau, R., & Coyecque, M.** Les atmosphériques sur les océans. Leurs caractères météorologiques. p. 1122-1124.

**Hubert, Henry.** Problèmes pratiques de météorologie concernant l'Afrique occidentale française. p. 1125-1127.

**Geographical journal. London. v. 65. May, 1925.**

**B., D.** Variations in the level of Lake Nyasa in relation to sunspot frequency. p. 437-439.

**Geographic. Paris. t. 43. Février, 1925.**

**Rouch, J.** La prévision du temps d'après l'aspect du soleil et des étoiles. p. 227-231.

**Heem en dampkring. Den Haag. 23 jaarg. 1925.**

**Nell, Chr. A. C.** Over het klimaat van Brazilië. p. 40-44. (Februari.)

**Everdingen, E. van.** De halo van Ommen. p. 71-73. (Maart.)

**Hartman, Ch. M. A.** Eerste en laatste datum van vorst. p. 76-78. (Maart.)

**Everdingen, E. van.** De storm van 8 op 9 Februari. p. 92-95. (April.)

**Hartman, Ch. M. A.** De winter 1924-1925. p. 95-96. (April.)

**Journal of scientific instruments. London. v. 2. April, 1925.**

**Lang, H. R.** The construction of platinum thermometers. p. 228-233.

**Marine observer. London. v. 2. May, 1925.**

**Garbett, L. G.** Upper air observations over the sea. p. 75-80.

*Meteorological magazine.* London. v. 60. 1925.

- Brooks, C. E. P. Weather in relation to pressure distribution, September, 1924, to February, 1925. p. 29-32. (March.)  
 Drizzle under a clear sky. p. 43-44. (March.)  
 Kidson, Edward. Types of mammillated clouds. p. 39-40. (March.)  
 Varley, F. J. Rainfall of very rare intensity. p. 38-39. (March.)  
 Martin, Edward A. The dew pond myth. p. 64-65. (April.)  
 Notes on some characteristics of a cold front, February 11th, 1925. p. 53-57. (April.)
- Meteorologische Zeitschrift.* Braunschweig. Band 42. 1925.  
 Arendt, Th. Zur täglichen Periode der Windgeschwindigkeit am Meteorologischen Observatorium bei Potsdam. p. 18-23. (Jan.)  
 Groissmayr, F. Zur Darstellung jährlicher Niederschlagsperioden. p. 30. (Jan.)  
 Kaygorodow, A. Über den Schwerpunkt einer atmosphärischen Luftsäule. p. 27-28. (Jan.)  
 Köppen, W. Drehung des Windes in Hamburg. p. 28-29. (Jan.)  
 Kofler, M. W. Altberg, Die Bildung des Bodeneises. p. 32-35. (Jan.) [Abstract of paper in Russian.]  
 Korotkewitsch, V. Über die Entstehung des Windes. p. 15-18. (Jan.)  
 Moltschanoff, P. Brisen in der Krim (Feodosia). p. 28-29. (Jan.)  
 Myrbach, Otto. Das Atem der Atmosphäre. p. 10-14. (Jan.)  
 Peine, William. Bemerkungen zum sonnentägigen Verlaufe des Luftdruckes. p. 23-25. (Jan.)  
 Schindelhauer, F. Versuch einer Registrierung der Tropenzahl bei Regenfällen. p. 25-27. (Jan.)  
 Schostakowitsch, W. B. Warne und kalte Winter in Sibirien und ihre Abhängigkeit von dem Zustand des Golfstromes. p. 1-10. (Jan.)  
 Baur, Franz. Eine Temperaturvorhersage für den Erstfrühling (März und April) 1925 in Deutschland. p. 64-67. (Febr.)  
 Kähler, K. Das luftelektrische Potentialgefälle in Potsdam 1904 bis 1923. p. 69-71. (Febr.)  
 Kassner, C. Trockenwahrscheinlichkeit. p. 71. (Febr.)  
 Letzmann, Johannes. Fortschreitende Luftwirbel. p. 41-52. (Febr.)  
 Peppler, W. Zum Alto-cumulus-Niveau. p. 62-63. (Febr.)  
 Schmauss, A. Zur Korrelation März-September. p. 67. (Febr.)  
 Schoenrock, A. Eine langdauernde Variation von Winter-niederschlägen. p. 67-79. (Febr.)  
 Süring, R. Paul Schreiber. p. 60-62. (Febr.) [Obituary.]  
 Thilenius, Rud., & Dorno, C. Das Davoser Frigorimeter (ein Instrument zur Dauerregistrierung der physiologischen Abkühlungsgrösse). p. 57-60. (Febr.)  
 Wiese, W. Die Einwirkung der mittleren Lufttemperatur im Frühling in Nord-Island auf die mittlere Lufttemperatur des nachfolgenden Winters in Europa. p. 53-57. (Febr.)

*Meteorologische Zeitschrift, etc.*—Continued.

- Dorno, C. Über die Verwendbarkeit von Eders Graukeilphotometer im meteorologischen Dienst. Parallelmessungen der photochemischen Ortshelligkeit in Europa zwischen dem 40. und 60. Breitengrade, auf dem Atlantischen Ozean und an der Ostküste Südamerikas. p. 81-97. (März.)  
 Georgii, Walter. F. M. Exner, Über die Auslösung der Kälte- und Wärmeinbrüche in der Atmosphäre. p. 124-127. (März.)  
 Kux, Ruoto. Die Temperaturquotienten. p. 103-108. (März.)  
 Maurer, J., & Lütsch, O. Über Verdunstungsmessungen im schweizerischen Hochgebirge. p. 111-114. (März.)  
 Peppler, W. Die meteorologischen Verhältnisse in der freien Atmosphäre bei zwei extremen Wettertypen. p. 114-118. (März.)  
 Perlewitz, P., & Dorno, C. Sonnenintensitäten und photochemische Helligkeit auf dem Nord- und Südatlantischen Ozean. p. 108-111. (März.)  
 Stüve, G. Gleitflächen und Pilotwindmessungen. p. 98-103. (März.)
- Nature.* London. v. 115. 1925.  
 Clark, J. Edmund. International cooperation in phenological research. p. 602-603. (April 25.)  
 McLennan, J. C. The auroral green line. p. 607. (April 25.)  
 Davies, Ben. Ball lightning phenomena. p. 640. (May 2.)  
 Durst, C. S. Formation of waterspouts. p. 676-677. (May 9.)  
 Gold, E. International commission for the investigation of the upper air. [London, April 17-22.] p. 781-782. (May 16.)  
 Stevens, Catharine O. Visible wind. p. 764. (May 16.)  
*Philosophical magazine.* London. v. 49. April, 1925.  
 Porter, Alfred W. On eddies formed behind apertures through which air is streaming. p. 649-662.  
*Reale accademia dei Lincei. Atti. Roma. Rendiconti.* v. (5)1, fasc. 6. 1925.  
 Oddone, Emilio. Sulla resistenza che la superficie terrestre oppone al movimento dell'aria. p. 308-311.  
*Scientific monthly.* New York. v. 20. June, 1925.  
 Gold, E. Weather forecasting. p. 629-636. [Repr. "Handbook to the exhibit of pure science."]  
 Simpson, G. C. The water in the atmosphere. p. 621-629. [Repr. "Handbook to the exhibit of pure science."]  
 Società meteorologica italiana. *Bullettino bimestrale.* Torino. v. 44. Gennaio-Marzo 1925.  
 Andamento pluviometrico di Napoli. p. 9-24.  
 Eredia, Filippo. La riforma del calendario gregoriano. p. 27-28.  
 Eredia, Filippo. Le zone climatiche della Tripolitania. p. 25-27.  
 Pagnini, Pietro. Nota sulla teoria vorticosa della grandine. p. 3-8.
- Zeitschrift für Geophysik.* 1. Jahrgang. 1924-25. H. 1/2.  
 Prandtl, L., & Tollmien, W. Die Windverteilung über dem Erdboden, errechnet aus den Gesetzen der Rohrströmung. p. 47-55.

## SOLAR OBSERVATIONS

### SOLAR AND SKY RADIATION MEASUREMENTS DURING APRIL, 1925

By HERBERT H. KIMBALI, Solar Radiation Investigations

For a description of instruments and exposures and an account of the method of obtaining and reducing the measurements the reader is referred to the REVIEW for January, 1924, 52: 42 and January, 1925, 53: 29.

From Table 1 it is seen that solar radiation intensities averaged slightly below normal values for April at all three stations. A noon reading of 1.50 gram-calories per min. per cm.<sup>2</sup> at Washington on the 7th almost equals the previous April maximum at that station of 1.51. For further particulars relative to the radiation intensities on this day see the paper by Mr. I. F. Hand in

this REVIEW, p. 147, entitled, "The effect of local smoke on visibility and solar radiation intensities."

Table 2 shows that the total solar and sky radiation received on a horizontal surface averaged slightly above normal at the three stations for which weekly normals have been determined.

At Washington skylight polarization measurements made on five days give a mean of 60 per cent, with a maximum of 66 per cent on the 7th. These are slightly above normal values for April at Washington. At Madison measurements made on seven days give a mean of 55 per cent, with a maximum of 60 per cent on the 4th. These are slightly below normal values for April at Madison.